## WE CLAIM:

1. A compound comprising the formula:

$$G = (C)_{h} - [M_{1}]_{a} - (C)_{b} - [M_{2}]_{a} - (M_{2})_{a} - (M_{3})_{b} - (M_{4})_{c} - (M_{$$

wherein:

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G is a linear or branched polymer residue;

Y<sub>1</sub> and Y<sub>2</sub> are independently O, S, or NR<sub>9</sub>;

 $M_1$ - $M_3$  are independently O, S, or  $NR_{10}$ :

 $M_4$  is X or Q;

wherein X is an electron withdrawing group and Q is a moiety containing a free electron pair positioned three to six atoms from  $C(=Y_2)$ ;

B is a residue of an amine-containing moiety or a residue of a hydroxylcontaining moiety;

 $R_{1\text{-}10}$  are independently selected from the group consisting of hydrogen,  $C_{1\text{-}6}$  alkyls,  $C_{3\text{-}12}$  branched alkyls,  $C_{3\text{-}8}$  cycloalkyls,  $C_{1\text{-}6}$  substituted alkyls,  $C_{3\text{-}8}$  substituted cycloalkyls, aryls, substituted aryls, aralkyls,  $C_{1\text{-}6}$  heteroalkyls and substituted  $C_{1\text{-}6}$  heteroalkyls;

- a, b, c, d, e, f, g, h, i and n are each independently zero or a positive integer.
  - 2. The compound of claim 1, wherein G includes a capping group A, selected from the group consisting of hydrogen, CO<sub>2</sub>H, C<sub>1-6</sub> alkyl moieties, and

$$\begin{array}{c} Y_{2} \\ \parallel \\ B-C-[M_{4}]_{i}-\begin{bmatrix} R_{5} \\ | \\ R_{6} \end{bmatrix}_{n}\begin{bmatrix} R_{3} \\ | \\ R_{4} \end{bmatrix}_{e} \begin{bmatrix} R_{3} \\ | \\ R_{4} \end{bmatrix}_{e}\begin{bmatrix} M_{2}]_{d}-\begin{bmatrix} R_{1} \\ | \\ R_{2} \end{bmatrix}_{c}\begin{bmatrix} Y_{1} \\ | \\ R_{2} \end{bmatrix}_{e}\begin{bmatrix} M_{1}]_{a}-(C)_{n} \\ R_{8} \end{array} \tag{II'}$$

3. A compound of claim 2, of the formula:

$$\begin{array}{c}
Y_{2} \\
\parallel \\
B-C-[M_{4}]_{i}-\begin{bmatrix}R_{5}\\C\\R_{6}\\A\end{bmatrix} \\
\begin{bmatrix}M_{3}\end{bmatrix}_{f}\begin{bmatrix}R_{3}\\C\\R_{4}\\B\end{bmatrix}_{g}\begin{bmatrix}M_{2}\end{bmatrix}_{d}-\begin{bmatrix}R_{1}\\C\\R_{2}\end{bmatrix}_{c}\begin{bmatrix}Y_{1}\\C\\R_{2}\end{bmatrix}_{c}\begin{bmatrix}M_{1}\end{bmatrix}_{a}\begin{bmatrix}C\\C\\A\end{bmatrix}_{b}$$

$$\begin{array}{c}R_{7}\\C\\R_{8}\end{array}$$

$$\begin{array}{c}R_{7}\\C\\R_{8}\end{array}$$

$$\begin{array}{c}R_{7}\\C\\R_{8}\end{array}$$

$$\begin{array}{c}R_{8}\\C\\R_{8}\end{array}$$
(II)

$$- \begin{cases} R_{1}^{7} \\ (C)_{n} - [M_{1}]_{a} \\ R_{8} \end{cases} \begin{pmatrix} Y_{1} \\ C \\ R_{2} \end{pmatrix}_{c} \begin{bmatrix} R_{1} \\ C \\ R_{2} \end{bmatrix}_{c} \begin{bmatrix} R_{3} \\ C \\ R_{4} \end{bmatrix}_{e} \begin{bmatrix} M_{3} \\ M_{3} \end{bmatrix}_{g} \begin{bmatrix} R_{5} \\ C \\ R_{6} \end{bmatrix}_{h} \begin{pmatrix} Y_{2} \\ M_{4} \end{bmatrix}_{i} - C - B$$

- 10 4. The compound of claim 1, wherein a, b, c, d, e, f, g, h, i and n are independently zero, one or two.
  - 5. The compound of claim 1, wherein  $Y_1$  and  $Y_2$  are both O.
  - 6. The compound of claim 1, wherein  $M_2$  is NH and d is one.
  - 7. The compound of claim 1, wherein  $R_7$  and  $R_8$  are both H.
- The compound of claim 1, wherein n is 1.
  - 9. The compound of claim 1, wherein a is 0.
  - 10. The compound of claim 1, wherein a is 1.
  - The compound of claim 1, wherein c is 0.
  - 12. The compound of claim 1, wherein g is 2,  $M_3$  is O, e is 2, f is 1 and
- 20 R<sub>3</sub> and R<sub>4</sub> are H.

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- 13. The compound of claim 12, wherein b, d, h and n are 1,  $R_5$  and  $R_6$  are H and  $M_2$  is NH.
- 14. The compound of claim 12, wherein h, d and n are 1,  $M_2$  is NH and  $R_3$  and  $R_4$  are H.
- 25 The compound of claim 1, wherein B is a residue of an amine containing moiety.

16. The compound of claim 15, wherein said amine-containing moiety is

wherein

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 $R_{12-13}$  are independently selected from the group consisting of hydrogen,  $C_{1-6}$  alkyls,  $C_{3-12}$  branched alkyls,  $C_{3-8}$  cycloalkyls,  $C_{1-6}$  substituted alkyls,  $C_{3-8}$  substituted cycloalkyls, aryls, halo, substituted aryls, aralkyls,  $C_{1-6}$  heteroalkyls, substituted  $C_{1-6}$  heteroalkyls;

R<sub>14-18</sub> are independently selected from alkoxy, e.g. OR<sub>19</sub> or, in the alternative, H, OH, N<sub>3</sub>, NHR<sub>20</sub>, NO<sub>2</sub> or CN, fluoro, chloro, bromo, iodo, where R<sub>19-20</sub> are independently selected from the same group which defines R<sub>12-13</sub>.

- 17. The compound of claim 1, wherein G is O-(CH<sub>2</sub>CH<sub>2</sub>O)<sub>x</sub> or O-(CH(CH<sub>3</sub>)CH<sub>2</sub>O)<sub>x</sub>, wherein x is the degree of polymerization.
- 18. The compound of claim 17, wherein G is O-(CH<sub>2</sub>CH<sub>2</sub>O)<sub>x</sub> and x is a positive integer selected so that the weight average molecular weight is at least about 20,000.
  - 19. The compound of claim 18, wherein G has a weight average molecular weight of from about 20,000 to about 100,000.
- 20. The compound of claim 21, wherein G has a weight average molecular weight of from about 25,000 to about 60,000.

## 22. A compound of claim 3, selected from the group consisting of:

$$G-CH_2-C-NH-(CH_2-CH_2-O)_2-CH_2-C-B$$

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$$G-CH_2-C-NH-CH_2-CH_2-O-C-B \qquad and \qquad S$$

## 15 24. A compound of claim 3, selected from the group consisting of:

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$$B = C - H_N - CH_2 - CH$$

- 25. A method of preparing a polymeric conjugate, comprising:
- a) reacting a biologically active moiety having an unprotected amine or hydroxyl group with a compound of the formula

$$B_{2}[M_{2}]_{d} = \begin{bmatrix} R_{3} \\ I \\ C \\ I \\ R_{4} \end{bmatrix}_{e} \begin{bmatrix} R_{5} \\ I \\ C \\ I \\ R_{6} \end{bmatrix}_{h} \begin{bmatrix} Y_{2} \\ II \\ IM_{4}]_{r-} C - B_{1}$$
 (III)

wherein

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B<sub>1</sub> is a leaving group capable of reacting with an unprotected amine or hydroxyl group;

B<sub>2</sub> is a cleavable protecting group;

 $Y_2$  is O, S, or  $NR_9$ ;

 $M_2$ - $M_3$  are independently O, S, or  $NR_{10}$ 

 $M_4$  is X or Q;

wherein X is an electron withdrawing group and Q is a moiety containing a free electron pair positioned three to six atoms from  $C(=Y_2)$ ;

 $R_{3.6}$ ,  $R_9$  and  $R_{10}$  are independently selected from the group consisting of hydrogen,  $C_{1.6}$  alkyls,  $C_{3.12}$  branched alkyls,  $C_{3.8}$  cycloalkyls,  $C_{1.6}$  substituted alkyls,  $C_{3.8}$  substituted cycloalkyls, aryls, substituted aryls, aralkyls,  $C_{1.6}$  heteroalkyls and substituted  $C_{1.6}$  heteroalkyls;

d, e, f, g, h, and i are each independently zero or a positive integer; to form a protected intermediate of the formula:

$$B_{2}[M_{2}]_{d} \underbrace{\left\{\begin{bmatrix} R_{3} \\ I \\ R_{4} \end{bmatrix}_{e} \begin{bmatrix} M_{3} \end{bmatrix}_{f} \begin{bmatrix} R_{5} \\ I \\ R_{6} \end{bmatrix}_{h} \begin{bmatrix} Y_{2} \\ I \\ R_{6} \end{bmatrix}_{h}} (IV)$$

wherein

B is a residue of an amine-containing moiety or a residue of a hydroxylcontaining moiety;

- b) deprotecting the resultant intermediate by removing B2; and
- c) reacting the deprotected intermediate with a compound of the formula

$$G = \begin{pmatrix} R_7 & & & \\ I & & & \\ (C)_{n} - [M_1]_a & & & \\ I & & & \\ R_8 & & & \\ \end{pmatrix}_b \begin{bmatrix} R_1 \\ C \\ I \\ R_2 \end{bmatrix}_{E}$$
 (V)

wherein

5  $B_3$  is a leaving group;

G is a polymer residue;

 $Y_1$  is O, S, or  $NR_9$ ;

 $M_1$  is O, S, or  $NR_{10}$ ;

R<sub>1</sub>, R<sub>2</sub>, R<sub>7</sub>, R<sub>9</sub> and R<sub>10</sub> are independently selected from the group consisting of hydrogen, C<sub>1-6</sub> alkyls, C<sub>3-12</sub> branched alkyls, C<sub>3-8</sub> cycloalkyls, C<sub>1-6</sub> substituted alkyls, C<sub>3-8</sub> substituted cycloalkyls, aryls, substituted aryls, aralkyls, C<sub>1-6</sub> heteroalkyls and substituted C<sub>1-6</sub> heteroalkyls;

a, b and c are each independently zero or a positive integer, whereby a polymeric conjugate is formed.

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26. A method of preparing a polymeric conjugate, comprising:

a) reacting a polymer-spacer intermediate of the formula

$$G = (C)_{n} - [M_{1}]_{a} - (C)_{b} - [M_{2}]_{d} = (M_{2})_{d} - (M_{3})_{e} - (M_{4})_{e} - (M_{4})_{e} - (M_{4})_{e} - (M_{4})_{e} - (M_{5})_{e} - (M_{$$

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wherein

 $B_1$  is a leaving group capable of reacting with an unprotected amine or hydroxyl group;

G is a polymer residue;

 $Y_1$  and  $Y_2$  are independently O, S, or NR<sub>9</sub>;

 $M_1$ - $M_3$  are independently O, S, or  $NR_{100}$ 

M₄ is X or Q;

wherein X is an electron withdrawing group and Q is a moiety containing a free electron pair positioned three to six atoms from  $C(=Y_2)$ ;

B is a residue of an amine-containing moiety or a residue of a hydroxylcontaining moiety;

 $R_{1-10}$  are independently selected from the group consisting of hydrogen,  $C_{1-6}$  alkyls,  $C_{3-12}$  branched alkyls,  $C_{3-8}$  cycloalkyls,  $C_{1-6}$  substituted alkyls,  $C_{3-8}$  substituted cycloalkyls, aryls, substituted aryls, aralkyls,  $C_{1-6}$  heteroalkyls and substituted  $C_{1-6}$  heteroalkyls;

a, b, c, d, e, f, g, h, i and n are each independently zero or a positive integer and thereafter reacting intermediate with a biologically active moiety having an unprotected amine or hydroxyl group to form the polymeric conjugate.

- 27. A method of treatment, comprising: administering to a mammal in need of such treatment an effective amount of a compound of claim 1, wherein B is a residue of a biologically active moiety.
- 28. A method of treatment, comprising: administering to a mammal in need of such treatment an effective amount of a compound of claim 3, wherein B is a residue of a biologically active moiety.

29. A compound of the formula:

$$B_{2}[M_{2}]_{d} \underbrace{ \begin{bmatrix} R_{3} \\ R_{4} \end{bmatrix}_{e} \begin{bmatrix} M_{3} \end{bmatrix}_{f} \begin{bmatrix} R_{5} \\ C \\ R_{6} \end{bmatrix}_{h} \begin{bmatrix} M_{4} \end{bmatrix}_{f} C B}$$
 (IV)

wherein

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B is a residue of an amine-containing moiety or a residue of a hydroxylcontaining moiety;

B<sub>2</sub> is a cleavable protecting group;

 $Y_2$  is O, S, or  $NR_9$ ;

M<sub>2</sub>-M<sub>4</sub> are independently O, S, or NR<sub>10</sub>,

M<sub>4</sub> is X or Q;

wherein X is an electron withdrawing group and Q is a moiety containing a free electron pair positioned three to six atoms from  $C(=Y_2)$ ;

 $R_{3-6,\,9}$  and 10 are independently selected from the group consisting of hydrogen,  $C_{1-6}$  alkyls,  $C_{3-12}$  branched alkyls,  $C_{3-8}$  cycloalkyls,  $C_{1-6}$  substituted alkyls,  $C_{3-8}$  substituted cycloalkyls, aryls, substituted aryls, aralkyls,  $C_{1-6}$  heteroalkyls and substituted  $C_{1-6}$  heteroalkyls;

d, e, f, g, h, and i are each independently zero or a positive integer.

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30. A compound of claim 1, selected from the group consisting of:

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31. A compound of claim 3, selected from the group consisting of:

20)  $- \begin{cases} -cH_2 - cH_2 - cH_2$ 

and

$$B-C-O-CH_{2}-C$$